

**Table S1.** The description of each restriction enzyme used in the study.

<b>Enzyme</b>	<b>Sequence</b>	<b>Methylation effects</b>
EcoRV	5'... $\square$ GAT $\downarrow$ ATC...3'	No methylation effects on digestion
EcoRI	5'...G $\downarrow$ AATTC...3'	No methylation effects on digestion
HindIII	5'... $\square$ A $\downarrow$ AGCTT... 3'	No methylation effects on digestion
NsiI	5'... $\square$ ATGCA $\downarrow$ T...3'	No methylation effects on digestion
NcoI	5'...C $\downarrow$ CATGG...3'	No methylation effects on digestion
PaeI	5'... $\square$ GCATG $\downarrow$ C...3'	No methylation effects on digestion
DpnI	5'...G <sup>m</sup> 6A $\downarrow$ TC...3'	Does not cut <i>dam</i> <sup>-</sup> DNA
EcoRII	5'... $\square$ $\downarrow$ CCWGG...3'	Dcm: completely overlaps – blocked
SnaBI	5'...TAC $\downarrow$ GTA...3'	CpG: completely overlaps – blocked